

GP-302034

IN THE CLAIMS

Claim 18 (Canceled):

Claim 19 (Canceled):

Claim 20 (Canceled):

Claim 21 (Currently amended): A releasable fastener system comprising:

a loop portion comprising a support and a loop material disposed on a surface thereon;

a hook portion comprising a support and a plurality of hook elements disposed on a surface, wherein the plurality of hook elements comprises a magnetorheological elastomer adapted to change a shape orientation and/or flexural modulus in response to a magnetic signal; and

a vibration sensor in operative communication with a selected one of the hook and loop portions, wherein the sensor detects a frequency and magnitude of a vibration to adjust a magnitude of the magnetic signal, wherein the change in magnitude of the magnetic signal changes a

means for changing the shape orientation and/or flexural modulus of the plurality of hook elements to reduce a shear force and/or a pull-off force of an engaged hook and loop portion and to provide a variable damping capability to the fastener system.

Claim 22. (New) The system of Claim 21, wherein the support comprises a metal, a plastic, a fabric, or a combination comprising at least one of the foregoing materials.

Claim 23. (New) The system of Claim 21, wherein the plurality of hook elements comprise a shape comprising a J-shaped orientation, an L-shape, a mushroom shape, a knob shape, a multi-tined anchor shape, a T-shape, a spiral shape, and combinations comprising at least one of the foregoing shapes.

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Claim 24. (New) The system of Claim 21, wherein the magnetorheological elastomer comprises ferromagnetic or paramagnetic particulates in an elastomeric material, wherein the elastomeric material comprises poly-alpha-olefins, natural rubber, silicone, polybutadiene, polyethylene, polyisoprene, polyurethane, or combinations comprising at least one of the foregoing polymeric materials.

Claim 25. (new) The system of Claim 21, wherein the loop portion and the hook portion from an interlocking system for a duration of a magnetic signal and disengages in an absence of the magnetic signal.

Claim 26. (New) The system of Claim 21, wherein the shear force and/or pull off forces increases by increasing the magnitude of the magnetic signal.